

## CIDOC Conceptual Reference Model (CRM)

This document was created in the context of the ASCH project<sup>1</sup>. It analysis the applicability of CIDOC CRM according to the requirements defined by the ASCH project.

CRM is an ontology for the description of concepts and relationships in the cultural heritage world. It is developed and published by the CIDOC Documentation Standards Group in the International Committee for Documentation of the International Council of Museums (ICOM)<sup>2</sup> and is also available as ISO 21127. The CRM homepage<sup>3</sup> provides a bundle of ontologies build around the the CRM, like:

- FRBROo, an ontology that harmonizes FRBR with CIDOC CRM to support the interchange of bibliographic and museum information.<sup>4</sup>
- CRMdig, a CRM extension supporting the modeling of provenance of digital object for e-science.<sup>5</sup>
- CRMsci, an extension supporting the description of scientific observation.<sup>6</sup>
- CRMinf, supporting the integration of metadata about argumentation and inference.<sup>7</sup>
- CRMarchaeo, supporting the “archaeological excavation process and all various entities and activities related to it”.<sup>8</sup>

These ontologies are used in different projects<sup>9</sup> and two of the standards we prove in this analysis – LIDO and EDM – are aligned with CRM.

---

<sup>1</sup> <http://asch.wiki.gwdg.de/index.php/asch>About>

<sup>2</sup> <http://icom.museum/>

<sup>3</sup> <http://www.cidoc-crm.org/>

<sup>4</sup> [http://www.cidoc-crm.org/frbr\\_inro.html](http://www.cidoc-crm.org/frbr_inro.html)

<sup>5</sup> [http://cidoc-crm.org/docs/CRMdig\\_v3.0.rdfs](http://cidoc-crm.org/docs/CRMdig_v3.0.rdfs)

<sup>6</sup> [http://cidoc-crm.org/rdfs/CRMsci\\_v1.2.rdfs](http://cidoc-crm.org/rdfs/CRMsci_v1.2.rdfs)

<sup>7</sup> [http://cidoc-crm.org/docs/cidoc\\_crm\\_sig/CRMinf-0.5.pdf](http://cidoc-crm.org/docs/cidoc_crm_sig/CRMinf-0.5.pdf)

<sup>8</sup> [http://cidoc-crm.org/docs/cidoc\\_crm\\_sig/CRMarchaeo\\_v1.3.pdf](http://cidoc-crm.org/docs/cidoc_crm_sig/CRMarchaeo_v1.3.pdf)

<sup>9</sup> <http://139.91.183.82:8888/drupal/use-cases>

The CRM model is independent of any encoding syntax and may be used with XML<sup>10</sup> or RDF<sup>11</sup>. Especially the Erlangen CRM<sup>12</sup>, an OWL implementation of CRM supports the use of the model for Linked Data applications.

The following analysis about the reusability of CRM for the description of collection items and their provenance uses the version 6.0 of the CIDOC CRM<sup>13</sup>.

<b>Resource</b>	Superclass of all classes used in the model	Entity	E1 CRM Entity	This class comprises all things in the universe of discourse of the CIDOC Conceptual Reference Model.	crm:E1_CRM_Entity	✓
[Requirement 6]	Resources must be identified by identifiers that are unique, machine readable and persistent.	Property	P1 is identified by	The property describes the naming or identification of any real world item by a name or any other identifier.	crm:E1_CRM_Entity crm:P1_is_identified_by crm:E42_Identifier .	✓
[Requirement 7]	Resources must be identified by a name/appellation that allows to distinguish between resources of the same type	Property	P1 is identified by	The property describes the naming or identification of any real world item by a name or any other identifier.	crm:E1_CRM_Entity crm:P1_is_identified_by crm:E41_Appellation .	✓
[Requirement 8]	The nature of a resource must be described using 1-n controlled values.	Property	P2 has type	This property allows sub typing of CRM entities – a form of specialization – through the use of a terminological hierarchy, or thesaurus.	crm:E1_CRM_Entity crm:P2_has_Type crm:E55_Type .	✓
[Requirement 9]	Resources can be interlinked with 0-n other resources.	Occurrence		Most properties used in CRM are repeatable.		(✓)

<sup>10</sup> <http://cidoc-crm.org/docs/epitafios1.xml>

<sup>11</sup> <http://cidoc-crm.org/docs/epitafios2.rdf>

<sup>12</sup> <http://erlangen-crm.org/>

<sup>13</sup> [http://cidoc-crm.org/rdfs/cidoc\\_crm\\_v6.0-draft-2015January.rdfs](http://cidoc-crm.org/rdfs/cidoc_crm_v6.0-draft-2015January.rdfs)

[Requirement 10]	Resources must be interlinked with each other using unique, machine readable and persistent identifiers.	Values		All entities used in crm may be identified by unique identifiers using P1 or its subproperties.		✓
[Requirement 11]	The nature of the relation between two resources can be specified using controlled values.	Property	.1	CRM supports properties of properties by so called subProperties and recommends the creation of subproperties where needed.  This is not RDF compliant.	crm:E71_Man_Made_Thing  crm:P102_has_title crm:E35_Title  crm:P102.1_has_type crm:E55_Type	(✓)
[Requirement 12]	The relation between two resources can be specified by the time this relation was valid.	Property				✗
[Requirement 71]	Topics of information resources must be described using controlled values	Property	P 129 is about	This property documents that an E89 Propositional Object has as subject an instance of E1 CRM Entity.	crm:E73_Information_Object crm:P129_is_about crm:E28_Conceptual_Object	✓
[Requirement 72]	Resources used as access points must be identified as instances of one or more classes.	Property	P2 has type	This property allows sub typing of CRM entities – a form of specialisation – through the use of a terminological hierarchy, or thesaurus.	crm:E1_CRM_Entity crm:P2_has_type crm:E55_Type .	✓
<b>Metadata Set</b>	<b>The machine readable description of a single resource by statements.</b>	<b>Entity</b>	<b>E31 Document</b>	<b>This class comprises identifiable immaterial items that make propositions about reality.</b>		✓
[Requirement 1]	Resource descriptions must be machine readable.			CRM supports a machine readable structured description of resources in TEXT, HTML, XML and RDF		✓
[Requirement 2]	Resource descriptions must be compliant to the one-to-one principle			CRM provides different classes to differentiate between different resources		✓

[Requirement 3]	A resource description must provide all attributes necessary to identify the resource and distinguish it from other resources of the same type.	Property		CRM provides a wide range of terms sufficient for the identification and differentiation of resources		✓
[Requirement 4]	Resource descriptions must be identified by identifiers that are unique, machine readable and persistent.		P1 is identified by	The property describes the naming or identification of any real world item by a name or any other identifier.	crm:E31_Document crm:P1_is_identified_by crm:E42_Identifier	✓
[Requirement 5a]	Creation of resource descriptions must be documented by time stamps.	Property	P94i was created by / P4 has Time Span	This property allows a conceptual E65 Creation to be linked to the E28 Conceptual object created by it / This property describes the temporal confinement of an instance of an E2 Temporal Entity.	crm:E31_Document crm:P94i_was_created_by crm:E65_Creation crm:P4_has_time_span crm:E52_Time_Span	✓
[Requirement 5b]	Modification of resource descriptions must be documented by time stamps.	Property	P124i was transformed by /P4 has Time Span	This property identifies the E77 Persistent Item or items that cease to exist due to a E81 Transformation. / This property describes the temporal confinement of an instance of an E2 Temporal Entity.	crm:E31_Document crm:P124i_was_transformed_by crm:E81_Transformation crm:P4_has_time_span crm:E52_Time_Span	✓
[Requirement 63]	Resource descriptions must include information about the reusability of these descriptions (e.g. license information)	Property	P104 is subject to	This property links a particular E72 Legal Object to the instances of E30 Right to which it is subject.	crm:E31_Document crm:P104_is_subject_to crm:E30_Rights	✓
[Requirement 64]	Resource descriptions must be compliant to a cross-domain or domain-specific metadata standard.			CRM is an international model supporting the interoperability of metadata about cultural heritage resources.		✓
[Requirement 65]	Resource descriptions must refer to the used metadata standard(s)	Property		Out of scope.		✗

Item	A real world thing in a collection	Entity	E18 Physical Thing	This class comprises all persistent physical items with a relatively stable form, man-made or natural		✓
[Requirement 13]	Item descriptions can be interlinked with evidence.	Property	P67i is referred to by	This property documents that an E89 Propositional Object makes a statement about an instance of E1 CRM Entity. P67 refers to (is referred to by) has the P67.1 has type link to an instance of E55 Type. This is intended to allow a more detailed description of the type of reference.	crm:E18_Physical_Thing crm:P67i_is_referred_to_by crm:E73_Information_Object	✓
[Requirement 20]	Item descriptions must be interlinked with 1-n events in the lifecycle of the item.	Property	P12i was present at	This property describes the active or passive presence of an E77 Persistent Item in an E5 Event without implying any specific role.	crm:E18_Physical_Thing crm:P12i_was_present_at crm:E5_Event	✓
[Requirement 75]	Items must be identified by identifiers that are unique, machine readable and persistent.	Property	P1 is identified by	The property describes the naming or identification of any real world item by a name or any other identifier.	crm:E18_Physical_Thing crm:P1_is_identified_by crm:E42_Identifier	✓
[Requirement 76]	Items must be identified by a name or appellation.	Property	P1 is identified by	The property describes the naming or identification of any real world item by a name or any other identifier.	crm:E18_Physical_Thing crm:P1_is_identified_by crm:E41_Appellation .	✓
[Requirement 42]	For items a digital representation/copy can be available.	Property	P138i has representation	This property establishes the relationship between an E36 Visual Item and the entity that it visually represents.	crm:E18_Physical_Thing crm:P138i_has_representation crm:E36_Visual_Item	✓
[Requirement 44]	Items can be represented by digital representations in different resolutions.	Property		P138i is repeatable.		✓
[Requirement 51]	Item descriptions must be assigned	Property	P46i forms part of	This property allows instances of E18 Physical Thing to be analyzed into	crm:E18_Physical_Thing crm:P46i_forms_part_of	✓

	to 1-n collections.			component elements.	crm:E18_Physical_Thing	
[Requirement 52]	All items of a collection must be interlinked with the collection using unique, machine readable and persistent identifiers.			Domain and Range of P46 have to be non-literal values, identified by URIs	<crm:E18_Physical_Thing rdf:about="DE-MUS-789911/lido/Wig74"><crm:p46i_forms_part_of rdf:resource="http://ld.zdb-services.de/resource/organisations/DE-MUS-056315"/></crm:E18_Physical_Thing>	✓
[Requirement 77]	Item descriptions must interlink with information about the current location of the item.	Property	P50 has current keeper	This property identifies the E39 Actor or Actors who had custody of an instance of E18 Physical Thing at the time this property was recorded.	crm:E18_Physical_Thing crm:P50_has_current_keeper crm:E39_Actor	✓
[Requirement 59]	Item descriptions must provide machine readable information about the accessibility and usability of items.	Property	P104 is subject to	This property links a particular E72 Legal Object to the instances of E30 Right to which it is subject.	crm:E18_Physical_Thing crm:P104_is_subject_to crm:E30_Rights	✓
<b>Evidence</b>	<b>A resource proving the reliability of a statement about a resource.</b>	<b>Entity</b>	<b>E73 Information Object</b>	<b>This class comprises identifiable immaterial items, such as poems, jokes, data sets, images, texts, multimedia objects, procedural prescriptions, computer program code, algorithm or mathematical formulae, that have an objectively recognizable structure and are documented as single units.</b>		✓
[Requirement 15]	Evidences can be machine readable.			Out of scope.		✗
[Requirement 16]	The nature of an evidence must be described by 1-n controlled values	Property	P2 has type	This property allows sub typing of CRM entities – a form of specialization – through the use of a terminological hierarchy, or	crm:E73_Information_Object crm:P2_has_type crm:E55_Type	✓

				thesaurus.		
[Requirement 17]	Information about resources in an evidence must be identified by unique identifiers.	Property		Out of scope.		X
[Requirement 18]	Information about the nature of a resource in an evidence must be identified by 1-n controlled values.	Property		Out of scope.		X
[Requirement 78]	Evidence descriptions must provide information about the accessibility and reusability of the resource.	Property	P104 is subject to	This property links a particular E72 Legal Object to the instances of E30 Right to which it is subject.	crm:E73_Information_Object crm:P104_is_subject_to crm:E30_Rights	✓
<b>Event</b>	<b>An activity in the lifecycle of a resource</b>	<b>Entity</b>	<b>E5 Event</b>	<b>This class comprises changes of states in cultural, social or physical systems, regardless of scale, brought about by a series or group of coherent physical, cultural, technological or legal phenomena. Such changes of state will affect instances of E77 Persistent Item or its subclasses.</b>		✓
[Requirement 79]	Event descriptions can be interlinked with evidence about the event (e.g. documents)	Property	P129i is subject of	This property documents that an E89 Propositional Object has as subject an instance of E1 CRM Entity.	Crm:E5_Event crm:P129i_is_subject_of crm:E73_Information_Object	✓
[Requirement 21]	Event descriptions must be machine readable.			CRM supports a machine readable structured description of resources in TEXT, HTML, XML and RDF		✓
[Requirement 22]	Event descriptions must show the nature of the relation between items, agents, places and/or time.	Property	P2 has type	This property allows sub typing of CRM entities – a form of specialization – through the use of a terminological hierarchy, or	crm:E5_Information_Object crm:P2_has_type crm:E55_Type	✓

				thesaurus.		
[Requirement 23]	An event in the lifecycle must be related to 1-n items.	Property	P12 occurred in the presence of	This property describes the active or passive presence of an E77 Persistent Item in an E5 Event without implying any specific role.	crm:E5_Event crm:P12_occurred_in_the_presence_of crm:E18_Physical_Thing	✓
[Requirement 24]	An event in the lifecycle of an item must be related to 0-n agents	Property	P11 had participant	This property describes the active or passive participation of instances of E39 Actors in an E5 Event.	crm:E5_Event crm:P11_had_participant crm:E39_Actor	✓
[Requirement 25]	The function/role of an agent during an event must be specified using controlled values (e.g. creator, dealer, collector).	Property	P14 carried out by and P14.1 in the role of	This property describes the active participation of an E39 Actor in an E7 Activity.	crm:E7_Activity crm:P14_carried_out_by crm:E39_Actor crm:P14.1_in_the_role_of crm:E55_Type	✓
[Requirement 26]	An event in the lifecycle of an item must be related to 0-n places.	Property	P7 took place at	This property describes the spatial location of an instance of E4 Period.	crm:E5_Event crm:P7_took_place_at crm:E53_Place	✓
[Requirement 27]	An event in the lifecycle of an item must be related to 0-n date information.	Property	P4 has time span	This property describes the temporal confinement of an instance of an E2 Temporal Entity.	crm:E5_Event crm:P4_has_time_span crm:E52_Time_Span	✓
<b>Time</b>	<b>A time span related to a resource via an activity or as a topic</b>	<b>Entity</b>	<b>E52 Time Span</b>	<b>This class comprises abstract temporal extents, in the sense of Galilean physics, having a beginning, an end and a duration.</b>		✓
[Requirement 29]	Date and time indication must be machine readable.	Property	P82 at some time within	This property describes the maximum period of time within which an E52 Time-Span falls.	crm:E52_Time_Span crm:P82_at_some_time_within crm:E61_Time_Primitive	✓
		Property	P79 beginning is qualified by	This property qualifies the beginning of an E52 Time-Span in some way.	crm:E52_Time_Span crm:P79_beginning_is_qualified_by	



		Property	P80 end is qualified by	This property qualifies the end of an E52 Time-Span in some way.	crm:E62_String crm:E52_Time_Span crm:P80_end_is_qualified_by crm:E62_String	
[Requirement 30]	Date information must be compliant to date type standards.	Datatype		Since the Time Primitive of the CRM can not directly be implemented in RDF Triple Stores, we define replacing P81 and P82 adequately using xsd:dateTime. <sup>14</sup>		(✓)
[Requirement 80]	A human readable form of date information can only be used in addition to a machine readable form.	Value	P78 is identified by	This property identifies an E52 Time-Span using an E49 Time Appellation.	crm:E52_Time_Span crm:P78_is_identified_by crm:E49_Time_Appellation	✓
[Requirement 81]	A human readable form of date information can use values of a controlled vocabulary.	value		Range of P78 has to be a non-literal value, identified by URIs	<crm:E52_Time_Span rdf:resource="ex:myTimeSpan"/><crm:P78_is_identified_by rdf:resource= <a href="http://vocab.getty.edu/aat/300021141">http://vocab.getty.edu/aat/300021141</a> />	✓
<b>Agent</b>	<b>A person, organization or group related to a resource via an activity or as a topic.</b>	<b>Entity</b>	<b>E39 Actor</b>	<b>This class comprises people, either individually or in groups, who have the potential to perform intentional actions for which they can be held.</b>		✓
[Requirement 32]	Agents must be identified by name and biographical information.	Property	P131 is identified by	This property identifies a name used specifically to identify an E39 Actor.	crm:E39_Actor crm:P131_is_identified_by crm:E82_Actor_Appellation	✓
			P92i was brought into existence by	This property allows an E63 Beginning of Existence event to be linked to the E77 Persistent Item brought into existence by	crm:E39_Actor crm:P92i_was_brought_into_existence_by crm:E63_Beginning_of_Existence	

<sup>14</sup> [http://cidoc-crm.org/rdfs/cidoc\\_crm\\_v6.0-draft-2015January.rdfs](http://cidoc-crm.org/rdfs/cidoc_crm_v6.0-draft-2015January.rdfs)

				it.		
			P93i was taken out of existence by	This property allows an E64 End of Existence event to be linked to the E77 Persistent Item taken out of existence by it.	crm:E39_Actor crm:P93i_was_taken_out_of_existence_by crm:E64_End_of_Existence	
[Requirement 33]	Agents must be identified by identifiers that are unique, machine readable and persistent.	Property	P48 has preferred identifier	This property records the preferred E42 identifier that was used to identify an instance of E1 CRM Entity at the time this property was recorded.	crm:E39_Actor crm:P48_has_preferred_identifier crm:E42_Identifier	✓
[Requirement 34]	Agent descriptions can interlink with resources related to the agent.	Property		CRM defined a set of different properties to interlink agents and resources.		✓
[Requirement 35]	Agent descriptions must be machine readable.			CRM supports a machine readable structured description of resources in TEXT, HTML, XML and RDF		✓
[Requirement 36]	Agent descriptions can interlink with places related to the agent.	Property	P74 has current or former residence	This property describes the current or former E53 Place of residence of an E39 Actor.  This property describes only one of many possible relation that are not described by CRM.	Crme:E39_Actor crm:P74_has_current_or_former_residence crm:E53_Place	(✓)
[Requirement 37]	The relation between an agent and a place can be specified by the character of the relation (e.g. visitor or resident)	Property				X
[Requirement 38]	The relation between an agent and a place can be specified by the time this relation was valid.	Property				X

<b>Place</b>	<b>A geographic location related to a resource via an activity or topic.</b>	<b>Entity</b>	<b>E53 Place</b>	<b>This class comprises extents in space, in particular on the surface of the earth, in the pure sense of physics: independent from temporal phenomena and matter.</b>		✓
[Requirement 39]	Places must be identified by identifiers that are unique, machine readable and persistent.	Property	P48 has preferred identifier	This property records the preferred E42 identifier that was used to identify an instance of E1 CRM Entity at the time this property was recorded.	crm:E53_Place crm:P48_has_preferred_identifier crm:E42_Identifier	✓
[Requirement 40]	Places must be identified by machine readable geo-information / geographic coordinates	Property	P87 is identified by	This property identifies an E53 Place using an E44 Place Appellation.	crm:E53_Place crm:P87_is_identified_by crm:E47_Spatial_Coordinates	✓
[Requirement 41]	Place descriptions can include 1-n place appellations.	Property	P87 is identified by	This property identifies an E53 Place using an E44 Place Appellation.	crm:E53_Place crm:P87_is_identified_by crm:E44_Place_Appellation	✓
<b>Digital Representation</b>	<b>A digital resource depicting an item</b>	<b>Entity</b>	<b>E36 Visual Item</b>	<b>This class comprises the intellectual or conceptual aspects of recognizable marks and images.</b>		✓
[Requirement 43]	A digital representation/copy must enable the identification of the item it represents.			Out of scope.		✗
[Requirement 45]	The nature of a digital representation must be described using a controlled value.	Property	P2 has type	This property allows sub typing of CRM entities – a form of specialization – through the use of a terminological hierarchy, or thesaurus.	crm:E36_Visual_Item crm:P2_has_Type crm:E55_Type	✓
[Requirement 60]	Descriptions of digital representations must provide	Property	P104 is subject to	This property links a particular E72 Legal Object to the instances of E30 Right to	crm:E36_Visual_Item	✓

	information about the reusability of the digital representation (e.g. license).			which it is subject.	crm:P104_is_subject_to crm:E30_Rights  crm:E30_Rights crm:P75i_is_possessed_by crm:E39_Actor	
[Requirement 61]	Descriptions of a digital representation must provide contact information related to the usability of a digital copy.	Property	P75i is possessed by / P76 has contact point	This property identifies former or current instances of E30 Rights held by an E39 Actor. / This property identifies an E51 Contact Point of any type that provides access to an E39 Actor by any communication method, such as e-mail or fax.	crm:E39_Actor crm:P76_has_contact_point crm:E51_Contact_Point	✓
[Requirement 82]	Digital representations must be identified by identifiers that are unique, machine readable and persistent.	Property	P1 is identified by	The property describes the naming or identification of any real world item by a name or any other identifier.	crm:E36_Visual_Item crm:P1_is_identified_by crm:E42_Identifier .	✓
<b>Collection</b>	<b>An aggregation of items:</b>	<b>Entity</b>	<b>E18 Physical Thing</b>	<b>This class comprises all persistent physical items with a relatively stable form, man-made or natural</b>		✓
[Requirement 46]	Collection descriptions must be machine readable.			CRM supports a machine readable structured description of resources in TEXT, HTML, XML and RDF		✓
[Requirement 47]	Collections must be identified by identifiers that are unique, machine readable and persistent.	Property	P1 is identified by	The property describes the naming or identification of any real world item by a name or any other identifier.	crm:E18_Physical_Thing crm:P1_is_identified_by crm:E42_Identifier	✓
[Requirement 48]	Collections must be identified by an explicit name.	Property	P1 is identified by	The property describes the naming or identification of any real world item by a name or any other identifier.	crm:E18_Physical_Thing crm:P1_is_identified_by crm:E41_Appellation .	✓
[Requirement 49]	Collection descriptions must include information about the location/place	Property	P53 has former or	This property allows an instance of E53 Place to be associated as the former or	Crm:E18_Physical_Thing crm:P53_has_former_or_current_location	✓

	of the collection.		current location	current location of an instance of E18 Physical Thing	crm:E53_Place	
[Requirement 50]	Collection descriptions must be compliant to a cross-domain metadata standard.			CRM is an international that has no special description set for collection descriptions. Therefore we use E18 Physical Thing.		✓
<b>Statement</b>	<b>A predication about an item.</b>	<b>Entity</b>		<b>CIDOC CRM uses properties of properties to specify statements and recommends the creation of proprietary properties if needed. In our analysis this solution is out of scope.</b>		✓
[Requirement 31]	A statement can be interlinked with date information.	Property				X
[Requirement 53]	All statements must be repeatable.	Occurrence		Most properties used in CRM are repeatable.		(✓)
[Requirement 73]	Statements can be interlinked with information about their origin.	Property				X
[Requirement 74]	Statements can be interlinked with resources.	Property				X
[Requirement 54]	Statements can be interlinked with resources proving their reliability.	Property				X
[Requirement 55]	Inconsistency of statements is allowed if the metadata refers to the origin of the statements.	Validation				X
[Requirement 86]	A statement can be related to 0-n places.	Property				X

Holding	The place an item is located, subclass of place	Entity	E39 Actor	This class comprises people, either individually or in groups, who have the potential to perform intentional actions for which they can be held.		✓
[Requirement 83]	Holdings must be identified by identifiers that are unique, machine readable and persistent	Property	P48 has preferred identifier	This property records the preferred E42 identifier that was used to identify an instance of E1 CRM Entity at the time this property was recorded.	crm:E39_Actor crm:P48_has_preferred_identifier crm:E42_Identifier	✓
[Requirement 84]	Holdings can be identified by machine readable geo-information / geographic coordinates.	Property	P74 has current or former residence / P87 is identified by	This property describes the current or former E53 Place of residence of an E39 Actor. / This property identifies an E53 Place using an E44 Place Appellation.	Crm:E39_Actor crm:P74_has_current_or_former_residence crm:E53_Place  crm:E53_Place crm:P87_is_identified_by crm:E47_Spatial_Coordinates	✓
[Requirement 85]	Holding descriptions must include 1-n place appellations.	Property	P131 is identified by	This property identifies a name used specifically to identify an E39 Actor.	crm:E39_Actor crm:P131_is_identified_by crm:E82_Actor_Appellation	✓
[Requirement 58]	Holding descriptions must provide contact information.	Property	P76 has contact point	This property identifies an E51 Contact Point of any type that provides access to an E39 Actor by any communication method, such as e-mail or fax.	crm:39_Actor crm:P76_has_contact_point crm:E51_Contact_Point	✓
Concept	A term from a controlled vocabulary	Entity	E55 Type	This class comprises concepts denoted by terms from thesauri and controlled vocabularies used to characterize and classify instances of CRM classes.		✓
[Requirement 66]	Controlled values used for the description of resources must be values of a domain-specific or a	Value	P71i is listed in	This property documents a source E32 Authority Document for an instance of an E55 Type.	Crm:E55_Type crm:P71i_is_listed_in crm:E32_Authority_Document.	✓

	cross-domain standard.					
[Requirement 67]	Controlled values used for the description of resources must be identified by identifiers that are unique, machine readable and persistent.	Property	P1 is identified by	The property describes the naming or identification of any real world item by a name or any other identifier.	crm:E55_Type crm:P1_is_identified_by crm:E42_Identifier .	✓
[Requirement 68]	The used controlled vocabularies must be available in machine readable form.	Value		Out of scope.		✗
[Requirement 69]	The used controlled vocabularies must be available open access.	Value		Out of scope.		✗
[Requirement 70]	Synonym appellations must be merged using authorities.	Property		Out of scope.		✗